

REMARKS/ARGUMENTS

Claims 1, 14, and 21 are amended. Claims 1-26 are pending in the application. Reexamination and reconsideration of the application, as amended, are respectfully requested.

Claim Rejection Under 35 U.S.C. § 102

Claims 1-26 are rejected under 35 U.S.C. 102(b) as being anticipated by Choperena *et al.* or Shu *et al.* This rejection is respectfully traversed.

The present invention provides a *connector unit* for integration of two or more automated clinical analyzers (see Figures 1 and 4). The connector unit of the present invention has an *aliquot vessel storage tray, internal and external shuttles* to move sample tubes in racks between the analyzers, and *means for randomly accessing* and transporting aliquot vessels between the aliquot vessel storage tray and the automated analyzers.

As explained on page 10, lines 5-7, the aliquot vessel storage tray 64 allows to store a number of aliquoted samples for a predetermined period of time or until a predetermined number of aliquot vessels containing samples have accumulated on the storage tray 64. As further explained on page 10, lines 14-18, means for random access and transporting aliquot vessels may be a pick-and-place mechanism 56, which transports filled aliquot vessels contained in the vessel storage tray 64 of the sample pipette station 54 to the sample wheel 22 of the immunodiagnostic analyzer 20. The aliquot vessels stored in the storage tray may be randomly accessed and transported by the pick-and-place mechanism to the sample wheel.

By providing a separate connector unit with a random access to the samples stored therein, the present invention provides a great flexibility and efficiency in running a broad range of testing protocols. For example, all filled aliquot vessels or only a predetermined group of the vessels may be transported to the sample wheel

for simultaneous testing. Also, several different assays can be run simultaneously and independently from each other. Furthermore, any sample contained in an aliquot vessel and stored on the storage tray can be easily accessed for sample remeasuring.

The Choperena reference does not anticipate the instant independent claims 1, 14, and 21. Choperena has no teaching whatsoever of integration of separate, independently functioning analyzers, much less of a separate connector unit of the present invention having an aliquot vessel storage tray, internal and external shuttles, and means for randomly accessing and transporting aliquot vessels between the aliquot vessel storage tray and the automated analyzers. Instead, Choperena teaches a device for automatic chemical analysis of samples comprising sample carousel 22 for receiving samples in sample cups 24 and an inner carousel 30 for storing reagent packs 32 (column 8, lines 31-40).

The Choperena reference does not make the instant claims 1, 14, and 21 obvious. There is nothing in the Choperena reference that suggests a desirability of storing samples in aliquot vessels prior to their analysis by one of the analyzers, much less of a need for a random access to such stored samples. The Choperena reference is directed to "a unique scheduling and timing method" to set up an operating sequence of various assay resources within the device, such as assay constituent delivery means, an incubator belt, separation and wash means and means for detecting a signal (column 5, lines 19-32 and column 18, lines 50-55).

Unlike the present invention that allows to store and randomly access samples in their original form (without reagents added), the Choperena reference requires transferring sample from a sample cup directly into a reaction vessel (column 9, lines 22-26), adding reagents to the reaction vessel immediately thereafter (column 10, lines 1-3), and placing the reaction vessel with the sample and reagents into an incubator (column 12, lines 18-22). Only one reaction vessel

containing assay constituents may be transferred from the incubator to the wash wheel and only in consequent order, which, in turn, requires positioning reactions vessels only in every third position of the wash wheel (column 17, lines 35-43).

Because Choperena reference does not have a connector unit with a storage area for aliquoted samples and does not have a means for randomly accessing and transporting aliquot vessels, such as pick-and-place mechanism, it does not offer the above-discussed advantages of the present invention, including simultaneous processing of samples by different analyzers, random access to the samples for additional testing, remeasurement efficiency and overall testing flexibility. In Choperena, samples cannot be simultaneously processed by different analyzers because only sequential assay protocols with very rigid scheduling sequences are allowed (column 19, lines 34-65).

Therefore, based on the teaching of Choperena, one of ordinary skill in the art would not have arrived at a connector unit of the present claims 1, 14, and 21. Accordingly, claims 1, 14, and 21 are patentable over the Choperena reference. Claims 2-13, 15-20, and 22-26 depend from claims 1, 14, and 21 and, thus, are patentable over Choperena for at least the same reasons as claims 1, 14, and 21.

Shu does not anticipate the instant independent claims 1, 14, and 21. Shu has no teaching whatsoever of a separate connector unit for integration of two or more analyzers, much less of the connector unit of the present invention having an aliquot vessel storage tray, a sample rack bypass area, separate internal and external shuttles, and means for randomly accessing and transporting aliquot vessels between the aliquot vessel storage tray and the automated analyzers. Instead, Shu describes an automatic chemistry analyzer with a revolving sample station 14 for retaining racks 34 with sample containers 32, reagent station 16, a random access analyzing station 18, a reaction cup analyzing station 20, and an ion selective electrode analyzing station 22 (column 4, lines 27-59). Shu utilizes a

single loading path 74 having no bypass area for both loading container racks 34 onto sample station 14 (column 14, lines 54-59) and removing container 34 from the sample 14 after sample analysis is completed (column 16, lines 59-64).

Shu does not make the instant claims 1, 14, and 21 obvious. There is nothing in Shu that suggests a desirability of storing samples in aliquot vessels prior to their analysis by one of the analyzers, much less of a need for a random access to such stored samples. In Shu, sample is withdrawn from a sample container 32 and is used immediately for analysis. For example, when sample is withdrawn by sample probe arm assembly 90, it is transported directly to a cuvette 44 disposed within analyzing station 18 (column 12, lines 12-18). When sample is withdrawn by sample probe arm assembly 134, it is transported directly to each of the reaction cup modules 58 of reaction cup analyzing station 20 and to the sample injection cup 60 of ion selective electrode analyzing station 22 (column 13, lines 23-27).

Because Shu reference does not have a storage area for aliquoted samples and does not have a pick-and-place mechanism, it does not offer the above-discussed advantages of the present invention, including random access to the samples, remeasurement efficiency and overall testing flexibility. In Shu, "[a]fter the sample within each of the sample containers 32 in a sample container rack 34 are analyzed, the sample container rack 34 is removed from the sample station 14 using the motorized loading path arm 82. The sample container rack 34 is retracted along the loading mechanism path 74 to the off-load tray 78... where it is removed by the operator" (column 16, lines 59-67). Thus, if a particular sample in a particular rack requires a remeasurement, the entire rack containing the sample would need to be reloaded by the operator.

Therefore, based on the teaching of Shu, one of ordinary skill in the art would not have arrived at a connector unit of the present claims 1, 14, and 21. Accordingly, claims 1, 14, and 21 are patentable over the Shu reference. Claims 2-

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13, 15-20, and 22-26 depend from claims 1, 14, and 21 and, thus, are patentable over Shu for at least the same reasons as claims 1, 14, and 21.


In view of the foregoing, it is respectfully submitted that the application is in condition for allowance. Reexamination and reconsideration of the application, as amended, are requested.

If for any reason the Examiner finds the application other than in condition for allowance, the Examiner is requested to call the undersigned attorney at the Los Angeles, California telephone number (213) 337-6700 to discuss the steps necessary for placing the application in condition for allowance.

If there are any fees due in connection with the filing of this response, please charge the fees to our Deposit Account No. 50-1314.

Respectfully submitted,
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